Claims 1-5, 7-10, 12, 14-27, 29, 30, 34-37 are pending. Reconsideration and allowance of the pending claims is respectfully requested.

§ 102(e) Rejection

Claims 1-5, 7-10, 12, 14-27, 29, 30, 34-37 stand rejected under 35 U.S.C. § 102(e) as being unpatentable over U.S. Patent No. 6,345,278 to Hitchcock et al. (hereinafter "Hitchcock"). The Applicants respectfully disagree.

Claim 1 in part recites a method implemented in a computer including,

- identifying one or more interactions associated with a business logic, wherein the business logic processes requests subsequently submitted via the form, and wherein each interaction is associated with a request and includes one or more command definitions to process the request; and

- identifying, in the one or more interactions, one or more attributes that are not obtained by the one or more interactions elsewhere; and

- generating, after automatically identifying the one or more data input fields, a form definition including the automatically identified one or more data input fields

Hitchcock is directed to a system for promulgating input data among various forms, such as for a university application (i.e., filling in the blanks). Hitchcock accomplishes this by utilizing a form engine to promulgate the relevant information from input data/database data. *Hitchcock*, Col. 6, lines 38-65. Once the entered data is verified (checked), the information is then entered into an appropriate form by the form engine. In Hitchcock, verification is limited to checking the entered data against pre-selected values. For example, checking to verify that the number entered into a social security number field corresponds to

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(1) nine digits and (2) only numbers are included in the data. *Hitchcock*, Col. 15, lines 1-3.

The Office's position is untenable with respect to the pending rejection under 35 U.S.C. §102(e), and specifically to Claim 1, for at least the following reasons.

First, in order for a *prima facie* case of anticipation to exist, all the claim limitations must be taught. The Office has failed to assert where the Hitchcock reference teaches or discloses "wherein each interaction is associated with a request and includes one or more command definitions to process the request". *Instant Action*, Page 3. The response to arguments section of the instant Action, also fails to address this deficiency. Hitchcock fails to teach this feature. Hitchcock is deficient because Hitchcock is directed to filling and validating entered data. This is to say, Hitchcock only checks and promulgates entered data and does not identify interactions associated with command definitions to process the request. For example, Hitchcock verifies if the user has entered a standardized test score which is acceptable to the college or university. In contrast, Claim 1 generally recites a method in which business logic interactions associated with a request include one or more command definitions to process the request. Thus, the interaction may direct how the business logic will process the request.

Second, Hitchcock fails to disclose "the business logic process requests subsequently submitted via the form. . ." In Hitchcock, the (college) form exists prior to the prospective college student entering data. In order for the student's data to be processed, the particular college's form must be in the system so the student's entered data may be verified against the university's requirements, e.g., does the student have a valid social security number have all the form fields include an entry. In contrast, Claim 1 recites "request subsequently submitted via the form. . ." As Hitchcock fails to disclose this function, a *prima facie* case of anticipation does not exit.

Third, neither the cited portions of Hitchcock (Col. 11, line 45-Col. 12, line 29; Col. 14, line 49-Col.15, lines 27) nor anywhere does Hitchcock disclose identifying one or more interactions associated with a business logic, wherein the business logic processes requests . . .wherein each interaction is associated with a request and includes one or more command definitions to process the request.

In contrast, the recited features include the ability to (1) identify one or more interactions associated with a business logic, (2) wherein the business logic processes requests subsequently submitted via the form and (3) wherein each interaction is associated with a request and includes one or more command definitions to process the request. The recited method may permit the identification of the interaction with the business logic. The interaction being associated with a request which includes one or more command definitions, or behavior of the business logic. *Instant Action*, Page 8, line 30. For example, a designer wishing to include a field in a form can restrict to certain values what a user can input into the field. *Instant Application*, Page 31, lines 16-25. In this manner, the identified interaction may result in the business logic processing a client request (e.g., problem solving). *Instant Application*, page 8, lines 11-18. Hitchcock fails to disclose this feature. In Hitchcock, the input data does not identify the interaction of a business logic. Instead, the Hitchcock data is acted upon by form engine to verify and promulgate the data into the university applications. Removal of the pending rejection under 35 U.S.C. §102(e) is requested and allowance is solicited.

Claim 2 depends from Claim 1, which is believed to be in a condition for allowance, Claim 2 is therefore allowable. Claim 2 is additionally allowable as Hitchcock fails to disclose "one or more restrictions to be imposed on the data subsequently input via the data field." Instead, the cited portions of Hitchcock disclose data manipulation, via XML, which occurs subsequently to the creation of the form, rather than restrictions to be imposed. *Hitchcock*, Col. 20, lines 48-65.

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Removal of the pending rejection under 35 U.S.C. §102(e) is requested and allowance is solicited.

Claim 3 depends from Claim 2 and is therefore allowable. Claim 3 in part recites "wherein the business logic processes requests subsequently submitted via the form." Hitchcock does not teach this capability. Moreover, the Office incorrectly cites Claim 3 as stating "which subsequently processes requests submitted via the form." This is incorrect. The cited portions of Hitchcock are directed to processing after the form has been filled out rather than processing "requests subsequently submitted via the form." In Hitchcock, the data has already been submitted and therefore does not meet the recited feature. Removal of the pending rejection under 35 U.S.C. §102(e) is requested and allowance is solicited.

Claims 4, 5 and 7-9 either directly or indirectly depend from Claim 1 and are therefore allowable based on the same rationale. Removal of the pending rejection under 35 U.S.C. §102(e) is requested and allowance is solicited.

Claim 10 is allowable over Hitchcock as Hitchcock fails to teach a method including at least the following features.

- automatically identifying one or more restrictions associated with a data input field, the automatically identifying including:

- wherein the business logic processes requests subsequently submitted via the form

- wherein each interaction is associated with a request and includes one or more command definitions to process the request

Hitchcock fails to identify one or more restrictions associated with a data input field. Rather, Hitchcock merely verifies data which is included in a field. In other words, Hitchcock does not identify a restriction (which is) associated with a field but whether data contained within the field is permitted. Thus, Hitchcock

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fails to identify the restriction, but instead merely determines if the particular data has been restricted or not.

Hitchcock fails to meet the second feature as the form is in the form engine prior to the user inputting data so the user entered data may be input into the form upon verification, i.e., Hitchcock does not disclose process requests subsequently submitted via the form. In Hitchcock, the foregoing is necessary as input data may be compared against that requested by the form originator.

With respect to the third feature, Hitchcock does not include interactions (with the business logic) associated with a request including one or more command definitions. For example, command definitions describing the behavior of the business logic. Hitchcock is limited to inputting data which is verified and promulgated to the various university forms. Thus, Hitchcock does not include one or more command definitions, such as may describe the behavior of the business logic. Instead, Hitchcock only inputs data which is verified for inclusion in the college's form. Removal of the pending rejection is requested and allowance is solicited.

Claim 12 depends from Claim 10 and is allowable based on the same rationale. Claim 12 is additionally allowable, as the discussed with respect to Claim 10, because the Hitchcock system/method fails to identify one or more restrictions. In Hitchcock the data within the field is simply tested to determine if the data is valid. At no time does Hitchcock identify a restriction on the field itself. Removal of the pending rejection is requested and allowance is solicited.

Claims 14-19 are allowable based on their dependence from Claim 10 which is believed to be in a condition for allowance. Claims 14-19 additionally recite features which are not disclosed in the art of record. Removal of the pending rejection is requested and allowance is solicited.

Independent **Claim 20** is allowable over the Hitchcock reference as Hitchcock fails to disclose computer readable media, in part, including

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• determining one or more attributes that are used by a business logic but not obtained by the business logic elsewhere

• wherein the determining is based at least in part on one or more interactions associated with the business logic, each of the one or more interactions being associated with a request to be processed by the business logic and including one or more command definitions to process the request;

• using, after determining the one or more attributes, each of the one or more attributes to define a field of a form definition, the field being used to obtain data input;

Hitchcock does not disclose determining one or more attributes that are use by a business logic. For example, determining attributes associated with interactions with the business logic. *Instant Application*, Page 61, lines 13-24. Instead, the cited portions of Hitchcock discuss a database of applicant attributes (data) rather than interactions associated with the business logic. *Hitchcock*, Col. 7, lines 29-38 (reproduced below).

applications.

As described in more detail below, information about the applicants is maintained as a set of attributes, each attribute corresponding to database fields. If an institution chooses to include in its application a request for an applicant attribute that does not correspond to one included in the database, the database is easily extended to include the new applicant attributes without reprogramming the forms engine. Once the new attribute is added to the database, it is available for automatic inclusion in all subsequent applications. [30] [35]

In the preferred embodiment, each attribute used to characterize applicants has a unique identifier or alias. The unique identifier allows the engine to recognize when the same information is being described by different labels or entered in a different format on different application forms. The information can then be saved properly and inserted into subsequent applications, regardless of differences in the entry format and labels in the first and subsequent applications. Thus, the variables can be universal and unique data elements having different names can be shared among applications. [40] [45]

For example, one institution on its application may refer ...

The other cited portions of Hitchcock, Col. 11, line 45 – Col.12, line 29, Col. 14, line 49 – Col. 15, line 27, disclose respectively, a viewable template for the student filling out the form and verification of data input into the fields. Each of these passages fail to disclose wherein the determining is based at least in part on one or more interactions . . . and including one or more command definitions to

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process the request. In the above passages the focus is on the actual data rather than on determining based at least in part on one or more interaction.

As the Office is aware, the examiner "ordinarily should reject each claim on all valid grounds available." *M.P.E.P. §707.07(g)* Further, "[w]here a major technical rejection is proper, it should be stated with a full development of reasons rather than by a mere conclusion coupled with some stereotyped expression." *Id.* The outstanding Action fails to address the feature of using, after determining the one or more attributes, each of the one or more attributes to define a field of a form definition, the field being used to obtain data input. Instead, the action merely cites "(col. 6, lines 3-11, col.7, lines 29-38, 60-67, col.8, lines 60-col.9, line 20,col.15, lines 27-46, and col.21, lines 1-67)." The citations disclose: the application includes fields for the applicant to enter specific information requested by the institution, information is maintained as a set of attributes (about the applicant) corresponding to a database field (i.e., the data itself) (col. 6, lines 3-11); the applicant database is extendable to include additional fields (col.7, lines 29-38, 60-67, col.8, lines 60-col.9, line 20); complex data, such as an applicant's name is broken down into simpler elements for use, i.e., a "first name field", a "last name field" and a "middle initial field" (col.15, lines 27-46) and an XML file is utilized to contain most of the information about an applicant (col.21, lines 1-67). These passages fail to teach using. . . each of the one or more attributes to define a field . . . the field being used to obtain data input. First, the Hitchcock attributes are only data related to the applicant such as a first name, a last name, etc. Second, the attributes do not define a field used to obtain data input. Rather, the Hitchcock attributes are the data being filled into a field and thus are incapable

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of defining the field itself. For at least the above reasons, removal of the pending rejection is requested and allowance is solicited.

Claims 21-25 depend from Claim 20 and are individually allowable based on the same rationale. Removal of the pending rejection is requested and allowance is solicited.

Claim 26 is allowable over Hitchcock for at least the reasons discussed below. Claim 26 in part recites

• a tag library to store validation code that, when included in a form definition and executed from the form definition, verifies that an input to an associated data input field of the form defined by the form definition satisfies one or more restrictions

• a form processor configured to automatically identify one or more restrictions to be associated with a data input field of the form, and further configured to add to the form definition, after the automatic identification of the one or more restrictions, validation code from the tag library to verify that a subsequent input to the data field satisfies the one or more automatically identified restrictions, wherein the form processor is configured to automatically identify the one or more restrictions by:

  identifying one or more interactions associated with a business logic, wherein the business logic processes requests subsequently submitted via the form; and

  identifying, in the one or more interactions, one or more attributes that are not obtained by the one or more interactions elsewhere.

The Hitchcock reference fails to disclose each and every feature of Claim 26 and is inapplicable as a reference under 35 U.S.C. §102(e). Hitchcock is directed to data input for promulgating college applicant information into various

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forms. The Hitchcock system/method accomplishes this capability by utilizing a form engine for filling in applicant entered data into fields.

In contrast, Claim 26 is directed to a system, including a tag library, in which a form processor identifies one or more restrictions to be associated with a data input field of the form. In this manner, the system may identify the restriction for the field in the form. In Hitchcock, the system is limited to verifying the data within the field is valid (i.e., a student's SAT score is within the range of possible SAT scores). This teaching of Hitchcock fails to anticipate the instant claim in which a tag library in which a form processor identifies one or more restrictions to be associated with a data input field of the form is implemented.

Moreover, Hitchcock does not identify, in the one or more interactions, one or more attributes that are not obtained by the one or more interactions elsewhere. The Hitchcock system fails to identify in the interactions one or more attributes as Hitchcock is limited to verifying the data within the field rather than attributes in the interactions, such as business logic process requests. Removal of the pending rejection is requested and allowance is solicited.

Claims 27, 29 and 30 are allowable based on their respective dependency from Claim 26 which is believed to be in a condition for allowance. Claims 27, 29 and 30 additionally recite features which are not disclosed in the art. Removal of the pending rejection is requested and allowance is solicited.

Claim 34 in part recites an architecture, including

• a business logic layer to process requests received from a client; and

• an execution environment layer via which a form processing module can communicate with the business logic layer, wherein the form processing module obtains, from the business logic layer, an indication of one or more restrictions on data input to a form for a request to be subsequently processed by the business logic layer, and adds the one or more restrictions to a form definition for the form

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Applicant respectfully note, Claim 34 does not recite a "tag library" nor "validation code from the tag library" as is recited in the rejection of Claim 34. As the pending rejection does not address a "business logic layer" or an "execution environment" not all the features of Claim 34 are present and Claim 34 is believed to be in a condition for allowance as the Office has failed to even assert that all the features are met. Applicants respectfully re-forward their arguments from the immediately preceding Reply. "In proceeding before the Patent and Trademark Office, the Examiner bears the burden of establishing a prima facie case of obviousness based upon the prior art..." *In re Fritch*, 972 F.2d 1260, 24 USPQ.2d 1780, 1783 (Fed. Cir. 1992). Removal of the pending rejection is requested and allowance is solicited.

Claim 35 is allowable based on their respective dependency from Claim 34 which is believed to be in a condition for allowance. Claim 35 recites additional features which are not disclosed in the art. Removal of the pending rejection is requested and allowance is solicited.

Independent **Claim 36** is allowable for at least the following reasons. Claim 36 in part recites,

• accessing a business logic to identify one or more interactions associated with the business logic, wherein each interaction is associated with a request and includes one or more command definitions for the business logic to process the request;

identifying, in the one or more interactions, one or more attributes that are not obtained by the one or more interactions elsewhere; and

indicating that the one or more identified attributes are to be obtained via a data input field on a form, and further indicating that an input for the data input field is needed when submitting the form.

Claim 36 is allowable as Hitchcock fails to disclose "wherein each interaction is associated with a request and includes one or more command definitions for the

business logic to process the request." In contrast, Hitchcock is directed to filling in data field so as to promulgate the entered data into a variety of forms. As such, Hitchcock does not associate interactions with a request and include one or more command definitions.

Moreover, Hitchcock does not identify, in the one or more interactions, one or more attributes that are not obtained by the one or more interactions elsewhere. The Hitchcock system fails to identify in the interactions one or more attributes as Hitchcock is limited to verifying the data within the field rather than attributes in the interactions, such as business logic process requests. Removal of the pending rejection is requested and allowance is solicited.
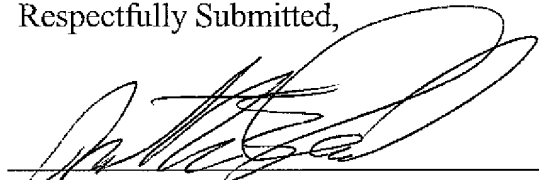
Claim 37 is allowable based on it dependence from Claim 36 which is believed to be in a condition for allowance. Additionally, Claim 37 recites additional features which are not disclosed in the art of record. Removal of the pending rejection is requested and allowance is solicited.

The claims are believed to be in condition for allowance. Applicant respectfully requests reconsideration and prompt issuance of the present application. Should any issue remain that prevents immediate issuance of the application, the Examiner is encouraged to contact the undersigned to discuss the unresolved issue.

Respectfully Submitted,

Dated: _1.3. 07_   By: _____

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